September 26, 2003

Certified Mail #: 9058 4691

Jack Taylor 3930 Michigan Street Hammond, Indiana 46323

Re: Registered Construction and Operation Status,

089-18053-00475

Dear Mr. Taylor:

The application from AGA Gas Central, received on August 5, 2003, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.1, it has been determined that the following paint spray booth and shot blaster, to be located at 3930 Michigan Street, Hammond, Indiana, is classified as registered:

- (a) One (1) shot blaster, identified as SB-1, with a maximum capacity of 0.100 tons per hour of shot, using DC-1 dust collector, as control, and exhausting to stack DC-1.
- (b) One (1) paint spray booth, with a maximum capacity of 0.65 gallons of paint per hour, using panel filters to collect paint overspray (PM and PM10), and exhausting through the booth stack.

The following conditions shall be applicable:

Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:

- (a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at the spray booths shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm and air dried coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Pursuant to the Hammond Ordinance 7102, which uses as a minimum the standards found in Title 326 of the Indiana Administrative Code, the PM emissions from the paint booths shall not exceed 0.04 tons per year or 0.009 pounds per hour. This is a technology-based emission limit

based on the dry filter specifications from the permittee's application and the potential emissions after controls as calculated by the Hammond Department of Environmental Management.

Pursuant to 326 IAC 6-3-2, the particulate from the shot blaster shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

 $E = 4.10 P^{0.67}$ 

where E = rate of emission in pounds per hour (0.876) and P = process weight rate in tons per hour (0.10 TPH).

However, since no controls are needed to meet this allowable rate, the Hammond Air Quality Control Ordinance No. 3522 (as amended) will limit the process emissions to the emissions after controls, which is 0.008 pounds per hour.

The dust collector, for the blasting room shall be in operation at all times the shot blaster is in operation, in order to comply with this limit.

Pursuant to 326 IAC 6-3-2(d) particulates from surface coaters that use greater than 5 gallons of coating per day shall be controlled by a dry particulate filter and is subject to the following:

- a. The control device shall be operated according to manufacturer's specifications.
- b. If overspray is visibly detected at the exhaust or on the ground, the source shall inspect the control device and do either of the following no later than four (4) hours after such observation:
  - Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
  - Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

If overspray is visibly detected, the source shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that the overspray is not visibly detected at the exhaust or on the ground. These records must be maintained for five (5) years.

Pursuant to Hammond Air Quality Control Ordinance 3522 (as amended), the source will be required to annually submit a statement of the actual emissions of all federally regulated pollutants from the source, for the purpose of source classification.

This registration is the first State Registration issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality and Hammond Department of Environmental Management (HDEM) that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.1-2(f)(3). The annual notice shall be submitted to:

Compliance Data Section Office of Air Quality 100 North Senate Avenue Indianapolis, IN 46206-6015

and

Hammond Department of Environmental Management Air Pollution Control Division 5925 Calumet Avenue Hammond, Indiana 46320 AGA Gas Central Page 3 of 4
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no later than March 1 of each year, with the annual notice being submitted in the format attached.

Any change or modification to the source that may increase the PTE above ten (10) tons per year of VOC or any individual HAP greater than ten (10) or combination greater than twenty-five (25) tons per year shall require prior approval by OAQ and HDEM.

An application or notification shall be submitted in accordance with 326 IAC 2 and the Hammond Air Quality Control Ordinance #3522 (as amended), if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Ronald Novak, Director Hammond Department of Environmental Management

 $\mathsf{KM}$ 

cc: Permits Administrator – Mindy Hahn

# Registration Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3).

Company Name: AGA Gas Central
Address: 3930 Michigan Street
City: Hammond
Authorized individual: Jack Taylor
Phone #: (219) 989-9030
Registration #: 089-18053-00475

I hereby certify that AGA Gas Central is still in operation and is in compliance with the requirements of Registration 089-18053-00475.

Name (typed):	Jack Taylor
Title:	Operations Manager
Signature:	
Date:	

# Indiana Department of Environmental Management Office of Air Quality and

# Hammond Department of Environmental Management Air Pollution Control Division

Technical Support Document (TSD) for a Registration

# **Source Background and Description**

**Source Name:** AGA Gas Central **Source Location:** 3930 Michigan Avenue

County: Lake

SIC Code: 2813 – Industrial Gases
Operation Permit No.: R089-18053-00475
Permit Reviewer: Kristina Massey

The Hammond Department of Environmental Management (HDEM) has reviewed an application from AGA Gas Central relating to the construction and operation of a paint spray booth to paint the gas cylinders used at AGA Gas Central.

### **Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) shot blaster, identified as SB-1, with a maximum capacity of 0.100 tons per hour of shot, using DC-1 dust collector, as control, and exhausting to stack DC-1.
- (b) One (1) paint spray booth, with a maximum capacity of 0.65 gallons of paint per hour, using panel filters to collect paint overspray (PM and PM10), and exhausting through the booth stack.

## **Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted facilities operating at this source during this review process.

# **Existing Approvals**

The source has been operating under previous approvals including, but not limited to, the following:

- (a) OP 02197, issued on February 7, 2003; and
- (b) Exemption 089-16973-00475, issued on February 7, 2003.

All conditions from previous approvals were incorporated into this permit.

# **Stack Summary**

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
DC-1	Shot Blaster Dust Collector	15	0.67	2000	70
Paint Booth	Paint Spray Booth	25	2	7000	68

#### **Enforcement Issue**

There are no enforcement actions pending.

#### Recommendation

The staff recommends to the Commissioner that the construction be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on August 5, 2003, with additional information received on August 11, 2003.

#### **Emission Calculations**

See Appendix A of this document for detailed emissions calculations (two (2) pages).

# **Potential To Emit**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	11.36
PM-10	10.87
SO <sub>2</sub>	0
VOC	9.96
CO	0
NO <sub>x</sub>	0
HAPs (Total)	<10

The potential to emit (as defined in 326 IAC 2-7-1(29)) of VOC is less than or equal to 25 tons per year, and is located in Lake County. The potential to emit of HAPs is less than 10 tons per year of all HAPs combined. Therefore, the source is not subject to the provisions of 326 IAC 2-7. However the potential to emit of PM and PM-10 is greater than five (5) tons per year, therefore, the source is subject to 326 IAC 2-5.1-2 – Registrations.

#### **Actual Emissions**

The following table shows the actual emissions from the source. This information reflects the 2002 emission data

Pollutant	Actual Emissions (tons/year)
PM	0.0001
PM-10	0.0001
SO <sub>2</sub>	0
VOC	0.0041
CO	0
$NO_x$	0
HAP (specify)	0

# **County Attainment Status**

The source is located in Lake County.

Pollutant	Status
PM-10	Nonattainment
SO <sub>2</sub>	Primary Nonattainment
NO <sub>2</sub>	Attainment/Unclassifiable
Ozone	Severe Nonattainment
CO	Attainment/Unclassifiable
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Lake County has been designated as severe nonattainment for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Emission Offset 326 IAC 2-3.
- (b) Lake County has been classified as attainment or unclassifiable for PM-10. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

# **Source Status After Modification**

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions			
	(ton/yr)			
PM	0.074			
PM10	0.069			
SO <sub>2</sub>	0			
VOC	9.96			
CO	0			
NO <sub>x</sub>	0			

This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and no nonattainment pollutants are emitted at a rate of 100 tons per year or more, or VOC

emitted at a rate of 25 tons per year or more, and it is not in one of the 28 listed source categories.

#### **Part 70 Permit Determination**

#### 326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year, and VOC less than 25 tons per year for a source in Lake County, and
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source. This status has been verified by the Hammond Department of Environmental Management (HDEM).

# **Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 20 and 40 CFR Part 61 and 63) applicable to this source.

# State Rule Applicability - Entire Source

## 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants)

This source is not subject to 326 IAC 2-4.1 since the source is not a major source of HAPs.

#### 326 IAC 2-6 (Emission Reporting)

This source is located Lake County and the potential to emit VOC and  $NO_X$  is less than ten (10) tons per year. The source is not one of the twenty-eight (28) listed sources and its potential to emit PM10 is less than one-hundred (100) tons per year including fugitive emissions, therefore, 326 IAC 2-6 does not apply.

The source will be required to annually submit a statement of the actual emissions of all federally regulated pollutants from the source, for the purpose of source classification.

# 326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

# State Rule Applicability - Individual Facilities

#### 326 IAC 8-2-9 (Miscellaneous Metal Coating)

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at the spray booth shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm and air dried coatings.

AGA Gas Central 3930 Michigan Street, Hammond, Indiana Permit Reviewer: Kristina Massey

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Based on the MSDS submitted by the source and calculations made, the spray booth is in compliance with this requirement.

- 326 IAC 2-1.1-10 Local Agencies [326 2-7-1(39) Definition Technology-based Emission Limit]
  Pursuant to the Hammond Ordinance 7102, which uses as a minimum the standards found in Title
  326 of the Indiana Administrative Code, the PM emissions from the paint booths shall not exceed
  0.04 tons per year or 0.009 pounds per hour. This is a technology-based emission limit based on the
  dry filter specifications from the permittee's application and the potential emissions after controls as
  calculated by the Hammond Department of Environmental Management.
- 326 IAC 6-3-2(d) (Particulate Emission Limitations, Work Practices, and Control Technologies)
  Pursuant to 326 IAC 6-3-2(d) particulates from surface coaters that use greater than 5 gallons of coating per day shall be controlled by a dry particulate filter and is subject to the following:
  - (1) The control device shall be operated according to manufacturer's specifications.
  - (2) If overspray is visibly detected at the exhaust or on the ground, the source shall inspect the control device and do either of the following no later than four (4) hours after such observation:
    - (A) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
    - (B) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

If overspray is visibly detected, the source shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that the overspray is not visibly detected at the exhaust or on the ground. These records must be maintained for five (5) years.

#### 326 IAC 6-3-2 (Particulate Emissions)

Pursuant to 326 IAC 6-3-2, the particulate from the shot blaster shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour (0.876) and P = process weight rate in tons per hour (0.10 TPH).

However, since no controls are needed to meet this allowable rate, the Hammond Air Quality Control Ordinance No. 3522 (as amended) will limit the process emissions to the emissions after controls, which is 0.008 pounds per hour.

The dust collector, for the blasting room shall be in operation at all times the shot blaster is in operation, in order to comply with this limit.

#### Conclusion

The construction of this paint spray booth shall be subject to the conditions of the attached proposed State Registration and Local Construction Permit.

AGA Gas Central 3930 Michigan Avenue Hammond, IN 46323

PLANT ID NO: INSP DATE:

CALC DATE: 8/13/03

CALCULATIONS BY: Kristina Massey

YEAR OF DATA: REVIEW NO. OF POINTS: 2

EF: EMISSION FACTOR

MDR: MAXIMUM DESIGN RATE

Ts: STACK DISCHARGE TEMPERATURE

CE: CONTROL EFFICIENCY

MDC: MAXIMUM DESIGN CAPACITY

UNITS FOR EMISSIONS ARE IN (TPY) EXCEPT WHERE GIVEN

LSI Shotblaster (SB-1)

MDR (T/hr): 0.1000

STACK ID (DIAM:HEIGHT): (0.67': 15')

YEARLY PROD (T/yr): 0

FLOWRATE (ACFM): 2000 Ts(°F): 80

CNTRL DEV: LSI Dust Collector (DC-1)

PERMITTED OPERATING HRS: 8760 hr/vr

TEMPITIES OF ENVITAGE TIME.												
POTENTIAL EMISSIONS								ALLOWA	BLE	COMPANY ACT	ΓUAL	
S	SCC #3-09-002-05 BEFORE CONTROLS AFT			BEFORE CONTROLS			FTER CONTROL	S			BEFORE	AFTER
POLLUTANT	EF(LB/T)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	8	0.99	0.8000	19.2000	3.5040	0.0080	0.0350	0.0005	0.0080	0.0350	0.0000	0.0000
PM10	6.88	0.99	0.6880	16.5120	3.0134	0.0069	0.0301	0.0004	0.0069	0.0301	0.0000	0.0000
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

EF for PM = 0.004 lb PM/ lb abrasive = 8 lbs/T

Air Quality Handbook Vol. 1

Hammond Air Quality Control Ordinance #3522 (as amended)

EF for PM10 = 0.86 lb PM10/ lb PM

The unit is intermittantly operated for cleaning cylinders at a maximum of once per week.

MDR = initial load of shot into blaster is 200 lbs (0.1 tons) and a maximum loading of shot of once per hour

Paint Spray Booth

MDR (gal/hr): 0.65 YEARLY PROD (gal/yr): 0

STACK ID (DIAM:HEIGHT): 2': 25' FLOWRATE (ACFM): 7000

Ts(°F): 68

CNTRL DEV: Andreae Dbl. Accordion Filters

97.7% control efficiency

PERMITTED OPERATING HRS: 8760 hr/yr

			POTENTIAL EMISSIONS							BLE	COMPANY ACT	ΓUAL
S	CC #4-02-001-10	CC #4-02-001-10 BEFORE CONTROLS			S	AFTER CONTROLS					BEFORE	AFTER
POLLUTANT	EF(lb/gal)	CE (%)	(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
PM	2.76	0.995	1.7940	43.0560	7.8577	0.0090	0.0393	0.0001	0.0090	0.0393	0.0000	0.0000
PM10	2.76	0.995	1.7940	43.0560	7.8577	0.0090	0.0393	0.0001	0.0090	0.0393	0.0000	0.0000
SOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
NOx	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
VOC	3.5	0	2.2750	54.6000	9.9645	2.2750	9.9645	N/A	2.2750	9.9645	0.0000	0.0000
CO	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000
LEAD	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	N/A	0	0.0000	0.0000	0.0000

EF for PM and PM10 = 4.6\*(1-0.4) = the maximum lbs/gal solids of the coatings used times (1 - TE), where TE is the transfer efficiency for air atomization (40%) from AP-42.

Painting of welding machine parts (2 to 3 gal/yr) will have a negligible effect on the Potential.

MDR is based on the amount of paint needed to coat the surface area of a maximum of 30 gas cylinders in an hour = 0.65 gal.

AGA Gas Central Plant Totals

		POTENTIAL EMISSION	ALLOWA	BLE	COMPANY AC	TUAL			
BE	BEFORE CONTROLS			AFTER CONTROLS				BEFORE	AFTER
(lbs/hr)	(lbs/day)	(TPY)	(lbs/hr)	(TPY)	(gr/dscf)	(lbs/hr)	(TPY)	CONTROLS	CONTROLS
2.5940	62.2560	11.3617	0.0170	0.0743	0.0006	0.02	0.07	0	0
2.4820	59.5680	10.8712	0.0159	0.0694	0.0006	0.02	0.07	0	0
0.0000	0.0000	0.0000	0.0000	0.0000	N/A	N/A	N/A	0	0
0.0000	0.0000	0.0000	0.0000	0.0000	N/A	N/A	N/A	0	0
2.2750	54.6000	9.9645	2.2750	9.9645	N/A	2.28	9.96	0	0
0.0000	0.0000	0.0000	0.0000	0.0000	N/A	N/A	N/A	0	0
0.0000	0.0000	0.0000	0.0000	0.0000	N/A	N/A	N/A	0	0

EF for VOC = 3.5 lbs/gal, max VOC content pursuant to 326 IAC 8-2-9 Misc. Coatings